Department of Energy

(d) Each NEMA Design B or an equivalent IEC Design N motor that is a general purpose electric motor (subtype I) or general purpose electric motor (subtype II), excluding fire pump electric motors, with a power rating of more than 200 horsepower, but not

greater than 500 horsepower, manufactured (alone or as a component of another piece of equipment) on or after December 19, 2010, shall have a nominal full-load efficiency that is not less than the following:

TABLE 4—NOMINAL FULL-LOAD EFFICIENCIES OF NEMA DESIGN B GENERAL PURPOSE ELECTRIC MOTORS (SUBTYPE I AND II), EXCEPT FIRE PUMP ELECTRIC MOTORS

Motor horsepower/ standard kilowatt equivalent	Nominal full-load efficiency							
	Open motors (number of poles)				Enclosed motors (number of poles)			
	8	6	4	2	8	6	4	2
250/186	94.5	95.4	95.4	94.5	94.5	95.0	95.0	95.4
300/224		95.4	95.4	95.0		95.0	95.4	95.4
350/261		95.4	95.4	95.0		95.0	95.4	95.4
400/298			95.4	95.4			95.4	95.4
450/336			95.8	95.8			95.4	95.4
500/373			95.8	95.8			95.8	95.4

- (e) For purposes of determining the required minimum nominal full-load efficiency of an electric motor that has a horsepower or kilowatt rating between two horsepower or two kilowatt ratings listed in any table of energy conservation standards in paragraphs (a) through (d) of this section, each such motor shall be deemed to have a listed horsepower or kilowatt rating, determined as follows:
- (1) A horsepower at or above the midpoint between the two consecutive horsepowers shall be rounded up to the higher of the two horsepowers;
- (2) A horsepower below the midpoint between the two consecutive horsepowers shall be rounded down to the lower of the two horsepowers; or
- (3) A kilowatt rating shall be directly converted from kilowatts to horse-power using the formula 1 kilowatt = (\(^{4}\).746) horsepower. The conversion should be calculated to three significant decimal places, and the resulting horsepower shall be rounded in accordance with paragraph (e)(1) or (e)(2) of this section, whichever applies.
- (f) This section does not apply to definite purpose motors, special purpose motors, or those motors exempted by the Secretary.

[77 FR 26635, May 4, 2012]

§ 431.26 Preemption of State regulations.

Any State regulation providing for any energy conservation standard, or other requirement with respect to the energy efficiency or energy use, of an electric motor that is not identical to a Federal standard in effect under this subpart is preempted by that standard, except as provided for in Section 345(a) and 327(b) and (c) of the Act.

LABELING

§ 431.31 Labeling requirements.

- (a) Electric motor nameplate—(1) Required information. The permanent nameplate of an electric motor for which standards are prescribed in §431.25 must be marked clearly with the following information:
- (i) The motor's nominal full load efficiency (as of the date of manufacture), derived from the motor's average full load efficiency as determined pursuant to this subpart; and
- (ii) A Compliance Certification number ("CC number") supplied by DOE to the manufacturer or private labeler, pursuant to §431.36(f), and applicable to that motor. Such CC number must be on the nameplate of a motor beginning 90 days after either:
- (A) The manufacturer or private labeler has received the number upon submitting a Compliance Certification covering that motor, or